

PATENT
SZS&Z Ref. No. : IO031111PUS
Atty. Dkt. No. INFN/SZ0032

REMARKS

This is intended as a full and complete response to the Office Action dated March 14, 2006, having a shortened statutory period for response set to expire on June 14, 2006. Please reconsider the claims pending in the application for reasons discussed below.

Claims 11-15, 17 and 20-24 are pending in the application. Claims 11-15, 17 and 20-24 remain pending following entry of this response. New claims 25-27 have been added to recite aspects of the invention. Applicant submits that new claims do not introduce new matter.

Claim Rejections - 35 USC § 102

Claims 11-15, 17, 20-24 are rejected under 35 U.S.C. 102(e) as being anticipated by *Hoehler* (Pub. U.S. Patent No. 2005/0078538, hereinafter "*Hoehler*").

Applicant respectfully traverses this rejection.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

In this case, *Hoehler* does not disclose "each and every element as set forth in the claim". For example, *Hoehler* does not disclose monitoring write operations by a memory controller, as recited in independent claims 11 and 20. The Examiner argues that *Hoehler* discloses a memory controller configured to monitor write operations to the memory device at [0037]. However, the cited passage in fact states that it is "[t]he command decoder [which] monitors all write commands directed to memory banks and controls the contents of the maximum row address register", and the command decoder is located in the memory device, not the memory controller ([0037]). In other words, *Hoehler* teaches that the write operations are monitored within the memory devices ([0037]).

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Accordingly, *Hoehler* also fails to teach "maintaining a plurality of bits indicative of rows containing memory cells involved in the monitored write operations *on the memory controller*", as recited in claim 11, or "a memory controller configured to monitor write operations to the memory device, to generate row data indicative of rows that are to be refreshed based on the monitored write operations and to transfer the row data to the memory device prior to placing the memory device in the self-refresh mode", as recited in claim 20.

Additionally, with respect to claim 13, the Examiner argues that *Hoehler* teaches "interface circuitry configured to receive the plurality of bits from a memory controller and to transfer the plurality of bits to the row state circuitry" at Figure 2, [0036]-[0037], and [0040]. However, the cited passages in fact never mention a memory controller or a transfer of a plurality of bits, and instead teach the self-refresh circuit, contained within the memory device, monitoring the maximum row address register, which is in turn updated by the command decoder, also contained within the memory device (see paragraphs [0036]-[0037], [0047]).

Therefore, claims 11, 13, and 20, as well as their dependents, are believed to be in condition for allowance, and withdrawal of this rejection is respectfully requested.

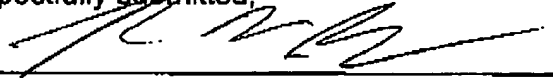
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Conclusion

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicant's disclosure than the primary references cited in the office action. Therefore, Applicant believes that a detailed discussion of the secondary references is not necessary for a full and complete response to this office action.

Having addressed all issues set out in the office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully requests that the claims be allowed.

Respectfully submitted,



Randol W. Read
Registration No. 43,876
PATTERSON & SHERIDAN, L.L.P.
3040 Post Oak Blvd. Suite 1500
Houston, TX 77056
Telephone: (713) 623-4844
Facsimile: (713) 623-4846
Attorney for Applicant